

AMENDMENT TO THE CLAIMS

1. (Currently amended) An MEMS device, comprising:

a first film including a first electrode;

a second film including a second electrode; and

an air gap formed between the first film and the second film,

wherein a first insulating film is formed on [[part]] a surface of the first film facing the

air gap,

a second insulating film is formed on [[part]] a surface of the second film facing the air

gap, [[and]]

the air gap is formed by removing a sacrificial film formed between the first film and the second film,

a top portion, facing to the first electrode, of the air gap is in contact with the first

insulating film, and

a bottom portion, facing to the second electrode, of the air gap is in contact with the

second insulating film.

2. (Previously presented) The MEMS device of Claim 1,

wherein at least one of the first electrode and the second electrode has a through hole

communicating with the air gap.

3. (Previously presented) The MEMS device of Claim 1,

wherein the first insulating film and the second insulating film are insulating films having

tensile stress.

4. (Previously presented) The MEMS device of Claim 1,

wherein the first insulating film and the second insulating film are silicon nitride films.

5. (Previously presented) The MEMS device of Claim 1,

wherein the sacrificial film is a lamination layer of a plurality of insulating films made of the same material.

6. (Previously presented) The MEMS device of Claim 1,

wherein the first film is a fixed film, and the second film is a vibrating film.

7. (Previously presented) The MEMS device of Claim 1,

wherein the first insulating film is formed so that the first electrode does not come into contact with the air gap, and

the second insulating film is formed so that the second electrode does not come into contact with the air gap.

8. (Previously presented) The MEMS device of Claim 1,

wherein the thickness of the air gap is determined substantially by the thickness of the sacrificial film.

9. (Previously presented) The MEMS device of Claim 1,

wherein one of the first film and the second film further includes an electret film.

10. (Previously presented) The MEMS device of Claim 1,
wherein one of the first film and the second film vibrates upon receipt of sound pressure.

11. (Previously presented) The MEMS device of claim 1,
wherein the air gap is formed using a semiconductor microfabrication technique.

12. (Previously presented) The MEMS device of claim 1,
wherein the air gap is formed by removing a part of the sacrificial film by wet etching.

13. (Previously presented) The MEMS device of claim 1,
wherein a protrusion is formed on either one of the first film and the second film.

14. (Previously presented) The MEMS device of claim 13,
wherein a recess corresponding to the protrusion is formed in the one of the first film and
the second film.

15. (Currently amended) The MEMS device of claim 1,
wherein the first film is formed on [[the]] a semiconductor substrate so as to be in contact
with the semiconductor substrate.

16. (Currently amended) The MEMS device of claim 1,
wherein the first film is formed on [[the]] a semiconductor substrate so as to be in contact
with the semiconductor substrate, and

a through hole is formed in the semiconductor substrate.

17. (Currently amended) The MEMS device of claim 1,

wherein the first film is formed on [[the]] a semiconductor substrate so as to be in contact with the semiconductor substrate, and

a through hole is formed in the semiconductor substrate, where the through hole is formed by removing a part of the semiconductor substrate by wet etching.

18. (Currently amended) The MEMS device of claim 1,

wherein the first film is formed on [[the]] a semiconductor substrate so as to be in contact with the semiconductor substrate,

the semiconductor substrate is placed on a printed circuit board so as to be in contact with the printed circuit board, and

a field effect transistor is formed on the printed circuit board so as to be in contact with the printed circuit board.

19. (New) The MEMS device of claim 1,

wherein a part of the sacrificial film is formed between the first and second films as a supporting portion, and

the air gap is substantially surrounded by the first and second insulating films and the supporting portion.